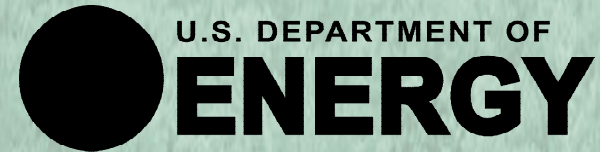


Savannah River Recovery Act Program

***Office of Environmental Management
Savannah River Operations Office
Savannah River Site
Aiken, South Carolina***



Savannah River Site Citizens Advisory Board Meeting

Update on Savannah River Recovery Act Program

January 25, 2011

Presented by

Zack Smith, Director

Savannah River Recovery Act Program

Project Status – HWCTR



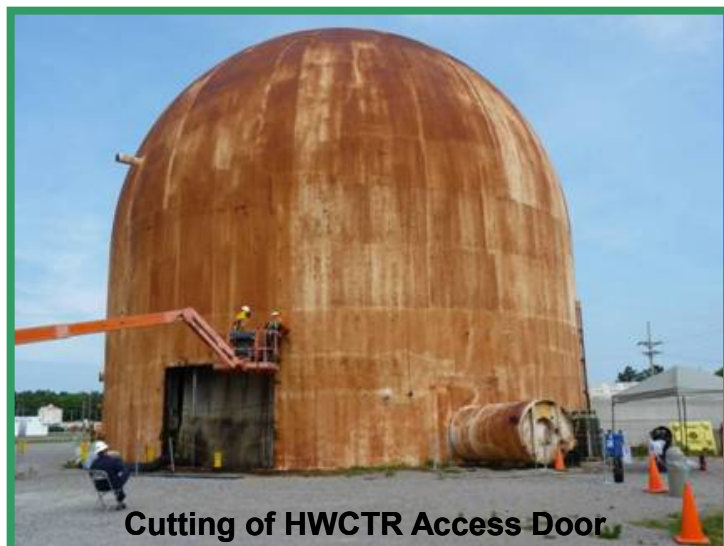
❖ Scope of Work:

- Heavy Water Components Test Reactor (HWCTR) Deactivation
- Reactor Vessel and Steam Generator Removal
- Grout below grade (including spent fuel pit)
- Remove Dome
- Place concrete cover over the remaining structure

❖ Achievements & Path Forward:

- Removed shielding block & grout to Elevation -21
- All 25 vessel nozzles cut and removed
- Prepared the site for the assembly of the Manitowoc 18000 crane
- Received and assembled the crane that will assist in erection of the Manitowoc 18000

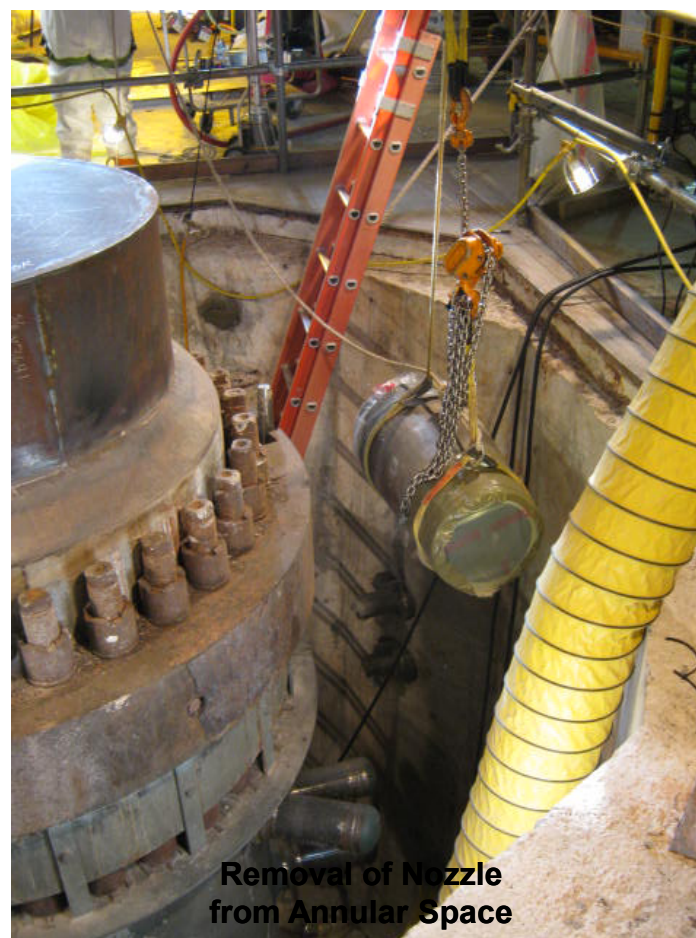
Achievements and Path Forward – HWCTR



Cutting of HWCTR Access Door



Reactor Vessel
Shield Block Removal



Removal of Nozzle
from Annular Space

Project Status – P & R Ash Basins



P Ash Basin

❖ Scope of Work:

- 40 acres in size; received ash sluice water from P Powerhouse operations (1953-1991)
- Consolidate ash into basin; install 2-foot thick non-structural soil cover over consolidated ash and soil

❖ Achievements & Path Forward:

- Remediation work continues
- Expected to complete on schedule and below cost estimates

Project Status – P & R Ash Basins



R Ash Basin

❖ Scope of Work:

- 14 acres in size; received ash sluice water from R Powerhouse operations (1953-1964)
- Consolidate ash into basin; install 2-foot thick non-structural soil cover over consolidated ash and soil

❖ Achievements & Path Forward:

- Declared mechanically complete

Achievements and Path Forward – P & R Ash Basins



Remediation work at P Area Ash Basin



**Completed sod installation at
R Area Ash Basin**



Project Status – P & R Reactor



❖ Scope of Work:

- Grout reactor building below grade, vessel, disassembly basin
- Modify selected roofs for drainage
- Remove stack to +55 foot-level
- Seal reactor building exterior

❖ Achievements:

P Reactor

- Over 89,000 of 100,000 cubic yards of grout placed in reactor
- Disassembly basin water evaporation completed (4 million gallons)
- Completed Reactor Cap placement and all Reactor below grade grout pours
- 7 of 9 roof grouting placements completed
- Estimated completion April 2011

R Reactor

- Grouting in disassembly basin now completed
- Over 86,000 of 96,000 cubic yards of grout placed in reactor
- Scaffolding being erected to support roof modifications
- Estimated completion June 2011

Achievements and Path Forward – P & R Reactor



R Reactor Disassembly Basin Before Grouting



R Reactor Disassembly Basin After Grouting

Project Status – TRU



❖ Scope of Work:

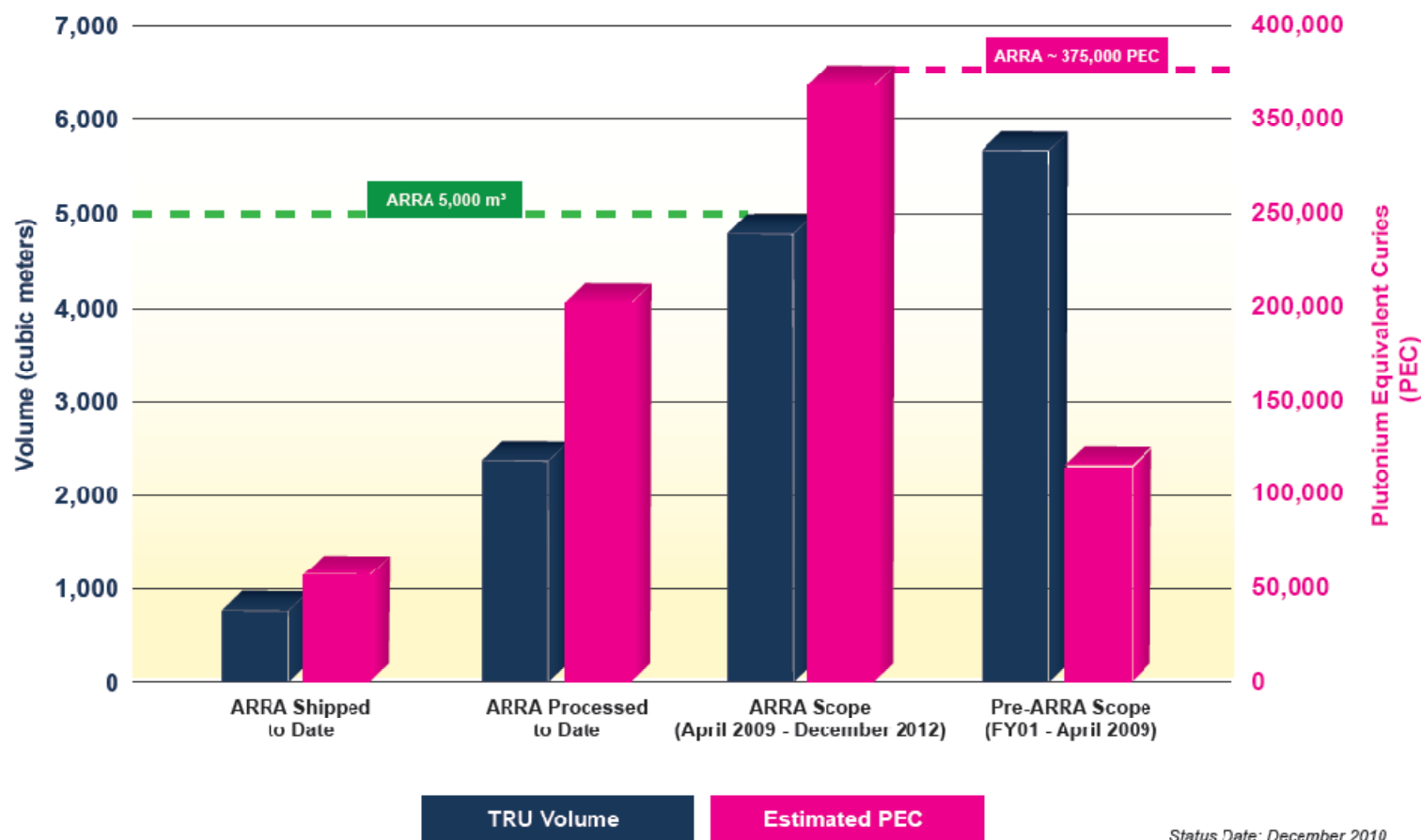
- Disposition 5,000 cubic meters legacy waste by December 2012

❖ Achievements & Path Forward:

- F-Box construction complete in Truckwell, startup anticipated in March
- Cell 11 construction complete, hot operations startup January 7
- Pad 16 all containers removed
- Completed early F-Box campaign in H-Canyon (43 SLBs)
- Four areas operating to support TRU dispositioning by April 2011

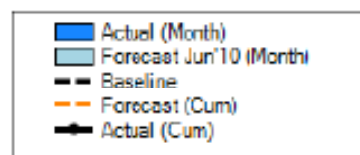
TRU Accomplishments

TRU Legacy Waste Program



Status Date: December 2010

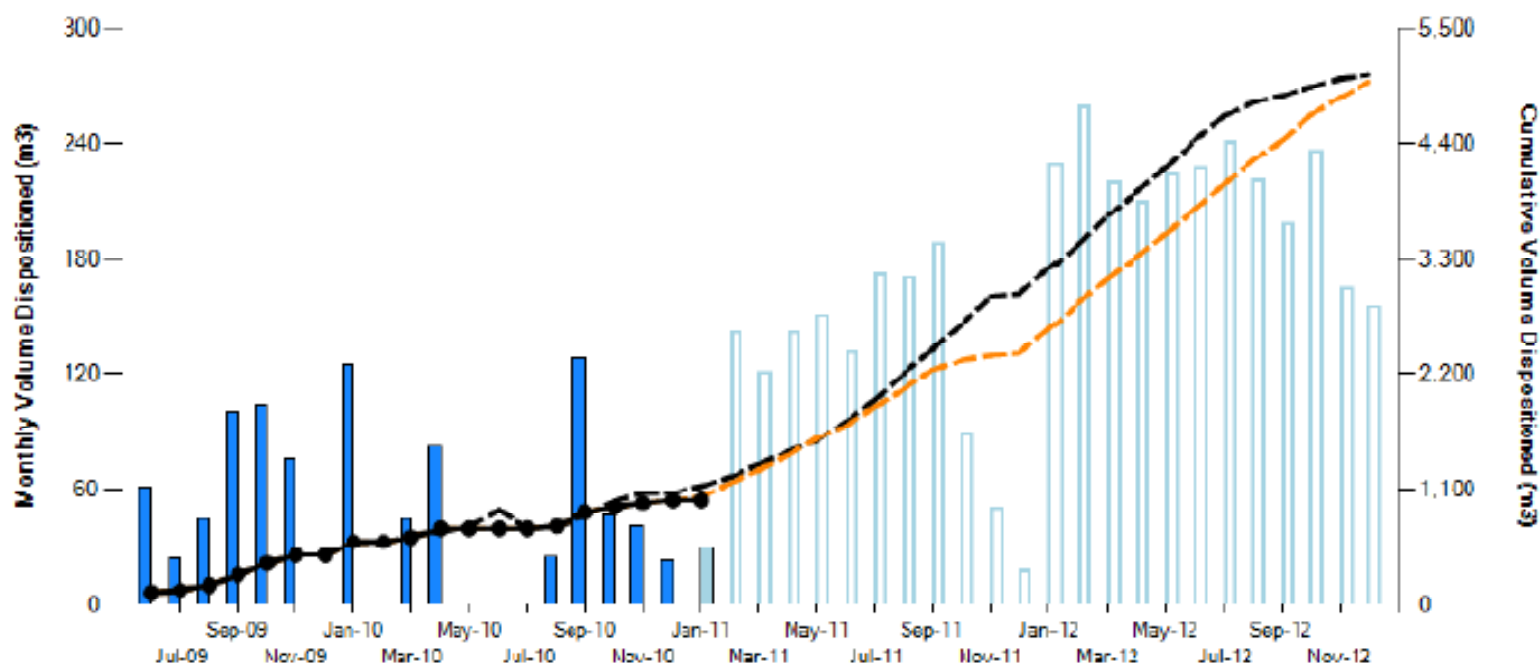
TRU Accomplishments



Total Legacy TRU Program Waste Disposition

TRU Waste

Through January 13, 2011



Footprint Reduction

Planned Date	Actual Date	Area	Where Units / Facilities	Square Miles	Square Miles Completed
Jan-10	Jan-10	P Area	P-AREA REACTOR AREA CASK CAR RR TRACKS, NBN	3.9	3.9
Jan-10	Jan-10	P Area	ECODS P-2 (South of P-Area) (Issue ROD)	3.9	3.9
Jan-10	Jan-10	R Area	R-AREA REACTOR AREA CASK CAR RR TRACKS, NBN	1.8	1.8
Jan-10	Jan-10	R Area	ECODS R-1A, -1B, -1C (EAST OF R REACTOR) (Issue ROD)	1.8	1.8
Jul-10	Jul-10	B Area	Complete D&D of 710-B SRHC Hazard Waste Storage Facility	7.0	7.0
Jul-10	Jul-10	R Area	GUNSITE 012 RUDDLE PILE, NBN	1.8	1.8
Jul-10	Jul-10	R Area	RUBBLE PILE ACROSS FROM GUNSITE 012, NBN	1.8	1.8
Jul-10	Jul-10	R Area	ECODS G-3 (ADJACENT TO GUNSITE 012), NBN	1.8	1.8
Aug-10	Aug-10	M Area	POTENTIAL RELEASE OF HEAVY METALS FROM 321-M SL	9.9	9.9
Aug-10	Aug-10	M Area	SALVAGE YARD, 741-A	9.9	9.9
Aug-10	Aug-10	M Area	UNDERGROUND SUMP 311 M #001 321-M	9.9	9.9
Aug-10	Aug-10	M Area	UNDERGROUND SUMP 311 M #002 321-M	9.9	9.9
Jul-10	Jul-10	P Area	POTENTIAL RELEASE FROM P-AREA DISASSEMBLY BASIN, 105-P (Issue ROD)	3.9	3.9
Jul-10	Jul-10	P Area	POTENTIAL RELEASE FROM P-AREA RX COOLING WATER, 106/100 P (Issue ROD)	3.9	3.9
Jul-11	Jul-10	P Area	SPILL ON 3/15/79 OF 500 GALS OF CONTAM WATER, NBN	3.9	3.9
Sep-10	Sep-10	R Area	R-AREA GROUNDWATER, NBN	1.8	1.8
Sep-11	Sep-11	SR Area	D&D of 105-3K Cooling Tower	36.5	36.5
Oct-10	Oct-11	R Area	GUNSITE 211 RUBBLE PILE, 631-23G (Issue ROD)	1.8	1.8
Nov-11	Nov-11	D Area	D-AREA PROCESS SEWER LINES AS ABANDONED, NBN	5.3	5.3
Jul-11	Dec-10	R Area	R-AREA ASH BASIN, 108-CR	1.8	1.8
Mar-11		K Area	COOLING WATER EFFLUENT SUMP, 10/R	1.8	
		R Area	R-AREA PROCESS SEWER LINES AS ABANDONED	1.8	
		B Area	ECODS B-3 (East of B Area, South of Road C)	7.0	
		B Area	ECODS B-5 (Adjacent to ECODS B-3)	7.0	
May-11		K Area	AREA ON THE NORTH SIDE OF BUILDING 105-R, NBN	1.8	
		R Area	UNKNOWN AREA NORTH OF 105R, NBN	1.8	
		R Area	RELEASE FROM DECON R-REACTOR DISASSEMBLY BASIN	1.8	
		R Area	COMBINED SPILLS NORTH OF BUILDING 105-R, NBN	1.8	
		R Area	POTENTIAL RELEASE OF NaOH/M2504 FROM 105-2R, NBN (Issue ROD)	1.8	
		R Area	POTENTIAL RELEASE FROM R-AREA DISASSEMBLY BASIN, 105-R (Issue ROD)	1.8	
		P Area	P-AREA PROCESS SEWER LINES AS ABANDONED	3.9	
Aug-11		D Area	D-AREA COAL PILE RUNOFF BASIN, 405-D	5.3	
		D Area	D-AREA WASTE OIL FACILITY, 404-10D	5.3	
		D Area	D-AREA ASBESTOS PIT, 080-20G	5.3	
		D Area	D-006 PETROLEUM RELEASE SITE, NBN	5.3	
		M Area	SMALL ARMS TRAINING AREA (SATA), NBN	9.9	
Sep-11		D Area	COMBINED SPILLS FROM 403-D AND ASSOCIATED AREAS	5.30	
		B Area	D&D of 770-U Heavy Water Component Test Reactor	6.95	
		R Area	D&D of 105-R Reactor Building Complex	1.80	
		P Area	P-AREA ASH BASIN (including Outfall P-007), 105-OP	3.90	
		PAR Pond	D&D of 651-6G Primary Transformer Substation/651-6G	1.60	
		PAR Pond	D&D of 681-6G PAR Pond Pump House	1.60	
		PAR Pond	D&D of 681-7G Pump House Equip Building - Adjacent to 681-1G	1.60	
		PAR Pond	D&D of 681-25G Chlorine Building	1.60	
		PAR Pond	D&D of 735-7G Environmental Support Facility, Par Pond	1.60	
		PAR Pond	D&D of 735-8G Greenhouse	1.60	
Dec-11		P Area	D&D of 105-P Reactor Building Complex	3.9	
Sep-12		C Area	C Area Reactor Cask Car Railroad Tracks as Abandoned (NBN)	1.9	
		C Area	Potential Release from C Area Disassembly Basin & C Area Reactor Cooling Water	1.9	
		C Area	717-C Contaminated Maintenance Facility	1.9	
		C Area	106-3C Fuel Unloading Facilities Power	1.9	
		C Area	904-89G Retention Basin for 100-C Containment	1.9	
		C Area	ECODS C-1	1.9	
		C Area	C Area Process Sewer Lines as Abandoned	1.9	
		C Area	C Area Reactor Discharge Canal	1.9	
		C Area	C Area Groundwater Operable Unit	1.9	
Total Sq Miles				233.6	122.2

Completed
Completed ahead of schedule
Behind Schedule

Footprint Reduction

Planned Date	Actual Date	Area	Waste Units / Facilities	Square Miles	Square Miles Completed
Jan-10	Jan-10	P Area	P-AREA REACTOR AREA CASK CAR RR TRACKS, NBN	3.9	3.9
Jan-10	Jan-10	P Area	ECODS P-2 (South of P-Area) (Issue ROD)	3.9	3.9
Jan-10	Jan-10	R Area	R-AREA REACTOR AREA CASK CAR RR TRACKS, NBN	1.8	1.8
Jan-10	Jan-10	R Area	ECODS R-1A, -1B, -1C (EAST OF R REACTOR) (Issue ROD)	1.8	1.8
Jul-10	Jul-10	B Area	Complete D&D of 710-B SRTC Hazard Waste Storage Facility	7.0	7.0
	Jul-10	R Area	GUNSITE 012 RUBBLE PILE, NBN	1.8	1.8
	Jul-10	R Area	RUBBLE PILE ACROSS FROM GUNSITE 012, NBN	1.8	1.8
	Jul-10	R Area	ECODS G-3 (ADJACENT TO GUNSITE 012), NBN	1.8	1.8
	Aug-10	M Area	POTENTIAL RELEASE OF HEAVY METALS FROM 321-M SL	9.9	9.9
	Aug-10	M Area	SALVAGE YARD, 741-A	9.9	9.9
	Aug-10	M Area	UNDERGROUND SUMP 321 M #001 321-M	9.9	9.9
	Aug-10	M Area	UNDERGROUND SUMP 321 M #002 321-M	9.9	9.9
	Jul-10	P Area	POTENTIAL RELEASE FROM P-AREA DISASSEMBLY BASIN, 105-P (Issue ROD)	3.9	3.9
	Jul-10	P Area	POTENTIAL RELEASE FROM P-AREA RX COOLING WATER, 186/190-P (Issue ROD)	3.9	3.9
Jun-11	Jul-10	P Area	SPILL ON 3/15/79 OF 500 GALS OF CONTAM WATER, NBN	3.9	3.9
Sep-10	Sep-10	R Area	R-AREA GROUNDWATER, NBN	1.8	1.8
	Sep 11	SR Area	D&D of 185 3K Cooling Tower	36.5	36.5
Oct-10	Oct-11	R Area	GUNSITE 218 RUBBLE PILE, 631-23G (Issue ROD)	1.8	1.8
	Nov-11	D Area	D-AREA PROCESS SEWER LINES AS ABANDONED, NBN	5.3	5.3
Jul-11	Dec-10	R Area	R-AREA ASH BASIN, 188-OR	1.8	1.8
Total Sq Miles				233.6	122.2

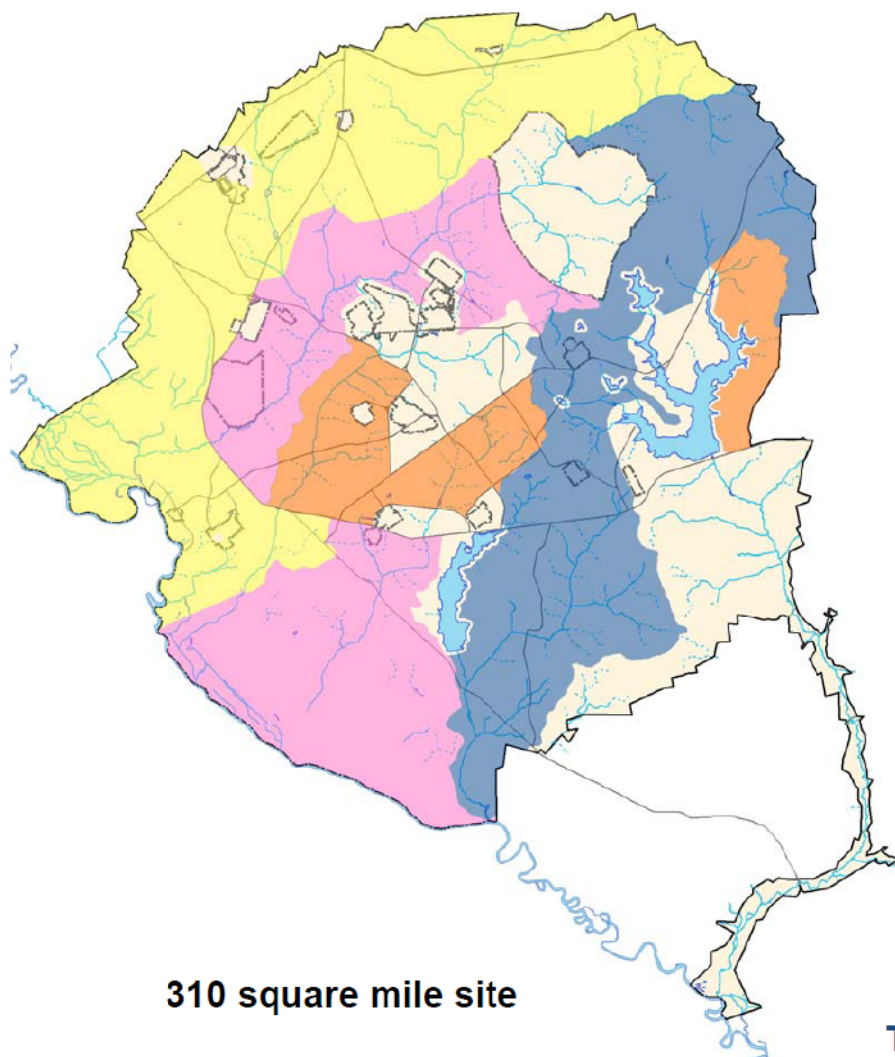
Completed
Completed ahead of schedule

Summary

- ❖ **Major progress achieved under ARRA**
 - 992 cubic meters of TRU shipped to date
 - 2,540 cubic meters of TRU processed to date
 - 122.2 miles Footprint Reduction achieved
- ❖ **Aggressive / Manageable plans for continued progress**
 - **Focused on**
 - TRU Disposition
 - Footprint Reduction



SRS Footprint Reduction



EM Footprint Reduction by FY11

P&R 20% 84.7 miles

M&D 26% 81.3 miles

Sitewide 21% 50.45 miles

Total 67% 216.45 miles

EM Footprint Reduction by FY12

P&R 8% 17.1miles

Total Percentage 75%

Total Square Miles 233

For more information, visit: <http://www.srs.gov/recovery/srsmap>